



WASHINGTON STATE
DEPARTMENT OF
E C O L O G Y

Regulatory Interpretation Manual for Underground Storage Tank Regulations

[Chapter 173 – 360 WAC]

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Washington State Department of Ecology Regulatory Interpretation Manual
For Underground Storage Tank Regulations (Chapter 173-360 WAC)

For EPA UST interpretations, go to <http://www.epa.gov/swerust1/compend/index.htm>

Note: All interpretations were developed in 1991-1992 unless otherwise indicated. Language and WAC references have been updated to reflect current regulations.

Topic	Regulatory Interpretation Number	Issue
When are certified UST supervisors required?	1	For tanks closed or abandoned before 12/22/88?
	2	For UST maintenance unrelated to compliance?
	3	For decommissioning heating oil tanks > 1100 gallons?
	4	For annual check of automatic line leak detectors?
Exemptions from UST regulations	5, 6	Criteria for regulated substance mixed with non-regulated substance. (#6 developed in 2003)
	6	Criteria for biodiesel (2003)
	7	Waivers for custom tanks?
	8	Criteria for USTs in vaults.
	9, 10	Criteria for bilge water & oil water separators.
	11	UST's used for both farm and non-farm activities.
	12	Criteria for AGT's surrounded by sand and concrete.
	13	Temporarily closed tanks out of service > one year.
Tank closure and closed tanks.	14	If site assessment shows release, is corrective action required before permanent closure?
	15	Triple rinse or manned entry for permanent closure?
	16	Do O&M requirements apply to CP systems installed before 12/22/88?
Cathodic protection	17	Cathodic protection for fill pipe (contact with soil) required?
	18	Cathodic protection required for new piping?
	19	Threshold value at which tank tightness testers must report results
Tank tightness testing	20	Define "annual" for "annual tank tightness test".
	21	Can ATG systems suffice for annual tank tightness tests?

Line tightness testing	22	When is line tightness testing for suction piping required?
	23	Can annual test be conducted < 1.5 x operating pressure?
	20	Define “annual” for “annual line tightness test”.
Automatic line leak detector	24	When ALLD is usable for what purposes.
	4	Annual check of ALLD required to be conducted by certified UST supervisor?
“Routinely contains regulated substance”	25	Define “routinely contains regulated substances”.
Site assessment	26	Can Ecology routinely require a site assessment for tanks abandoned or closed before 12/22/88 when additional closure or removal activities are conducted?
	27	Definition of “site”.
	28	Site assessment required if use of UST changes to exempt tank?
SIR questions	29	SIR questions.
Converting UST to AGT	30	Change-in-service or permanent closure?
Tank Lining	31	Does the act of lining tanks change the date when release detection is required?
Permit denial/revocation	32	Can UST permit be denied or revoked?
Heating oil tank questions	33	Commonly asked questions about heating oil.

REGULATORY INTERPRETATION

ISSUE NUMBER 1

(May 17, 1991)

ISSUE:

Are tank owners/operators required to use certified UST supervisors when additional closure or removal activities are undertaken on tanks closed or abandoned before 12/22/88?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-395: "When directed by the department. . .the owner or operator of an UST system permanently closed or abandoned before December 22, 1988, shall have a certified UST supervisor close the UST system..."

WAC 173-360-630 (4): "A certified UST supervisor shall be present on site at all times that tank services activities are being carried out at a tank... decommissioning project..."

INTERPRETATION:

Tank owners/operators are required to use certified UST supervisors to conduct additional closure or removal activities, including tanks closed or abandoned before 12/22/88.

Note: Tanks installed prior to 1974 are included in this interpretation.

REGULATORY INTERPRETATION

ISSUE NUMBER 2

(1991, month/day unknown)

ISSUE:

Are certified UST supervisors required for UST “maintenance” activities that are conducted for reasons other than compliance with the UST regulations? If so, are certified UST supervisors required to submit checklists for such work?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-610: “...These rules apply to any person who performs the installation, retrofitting, decommissioning, testing, site check, site assessment, of underground storage tanks...”

WAC 173-360-350(4): “Certified UST supervisors who perform any of the tank services described in this section shall certify that such services comply with the requirements of this section by signing the appropriate checklist(s) provided by the department.”

WAC 173-360-630(2) (a): “A checklist must be completed for each regulated activity performed...”

INTERPRETATION:

Certified UST supervisors and submittal of checklists are both required anytime a regulated UST activity is conducted. Regulated activities include those activities which fall under the categories of installation, retrofitting, decommissioning and testing, whether or not they are performed for the purpose of compliance with UST regulations. For example, tightness testing, even when it is being conducted as a maintenance activity to determine the condition of an UST system rather than for purposes of complying with UST regulations, is considered to be a regulated activity. Only those activities which do not fall under one of the above categories, as defined in the UST rules, are considered to be unregulated activities. (An example of an unregulated activity is replacing a submersible pump with a new pump.)

REGULATORY INTERPRETATION

ISSUE NUMBER 3

(1991, month/day unknown)

ISSUE:

Are certified UST supervisors required for decommissioning heating oil tanks larger than 1100 gallons capacity?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-110 (2) (h): “UST systems used for storing heating oil for consumptive use on the premises where stored (are exempt from this chapter) except that such systems which store in excess of one thousand one hundred gallons are subject to the release reporting requirements of WAC 173-360-372.”

INTERPRETATION:

Certified UST supervisors are not required for decommissioning heating oil tanks over 1100 gallons used for storing heating oil for consumptive use on the premises where stored.

REGULATORY INTERPRETATION

ISSUE NUMBER 4

(February 3, 1992)

ISSUE:

Must the required annual operational check of automatic line leak detectors be performed by a certified UST supervisor?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-350(3) (a): "An annual test of the operation of the leak detector shall be conducted in accordance with the manufacturer's requirements."

INTERPRETATION:

The annual operational check of automatic line leak detectors must be conducted by a certified UST supervisor when either of the following conditions are present:

- 1) The manufacturer's requirements and/or recommended procedures for conducting the annual operational check of these devices are more complex than simply pushing a "test" button or turning on a switch; or
- 2) Any required equipment to perform the operational check is not supplied by the manufacturer as an integral part of the automatic line leak detector.

The person performing this check must be certified in either Installation/Retrofitting or Tightness Testing.

REGULATORY INTERPRETATION

ISSUE NUMBER 5

(1991, month/day unknown)

ISSUE:

How is “a de minimis concentration of regulated substances” defined for purposes of applying the exemption under WAC 173-360-110 (2) (e)?

INTERPRETATION:

When a tank contains more than 110 gallons of petroleum substances, it is regulated. If petroleum is mixed with a nonregulated substance, the amount of petroleum can be calculated by multiplying the known or estimated concentration by the capacity of the UST. For example, if an UST system with a nominal tank capacity of 12,000 gallons contained a petroleum/water mixture at 1% concentration of petroleum, the total amount of the regulated substance would be 120 gallons and the UST system would be regulated.

For non-petroleum regulated substances or any mixture of petroleum and non-petroleum substances, each situation will be resolved on a case-by-case basis in the regions.

REGULATORY INTERPRETATION

ISSUE NUMBER 6



Frequently Asked Questions about **Biodiesel in underground storage tanks** (July 1, 2003)

from Ecology's Toxics Cleanup Program

What is biodiesel?

Biodiesel is a cleaner-burning diesel replacement fuel made from vegetable oil. Using biodiesel in a conventional diesel engine substantially reduces emissions of unburned hydrocarbons, carbon monoxide, sulfates and particulate matter. Biodiesel is also much less toxic to the environment than petroleum-based diesel and biodegrades much faster.

Different blends of biodiesel and petroleum diesel are on the market. Higher blends of biodiesel, including 100 percent biodiesel, are most popular for marine vessels and other applications in pristine or vulnerable environments. Blends such as 20 percent biodiesel are popular for general use due to current lower cost.

How do Washington's Underground Storage Tank regulations apply to biodiesel?

If biodiesel is blended with petroleum diesel, another petroleum product, or a hazardous substance, Washington's Underground Storage Tank (UST) regulations apply to those blends (Chapter 173-360 WAC). One-hundred percent biodiesel contains no petroleum-based products or hazardous substances. Therefore, Washington's UST regulations do not apply to 100 percent biodiesel.

What if I change the use of a tank from diesel to 100 percent biodiesel?

People who change the use of an underground storage tank from storing diesel to storing 100 percent biodiesel must send Ecology a letter explaining the change. In addition, a site assessment must be performed by a certified site assessor (Chapter 173-360-385 WAC). Ecology will then inform the Department of Licensing to discontinue billing for tank fees. Ecology highly recommends that tank insurance be maintained after the change-in-service, unless the owner never expects to use a regulated substance in the tank again.

Who should I contact regarding a spill of biodiesel?

Although biodiesel is far less toxic to the environment than petroleum diesel, it can still be a problem if spilled near or on water bodies. Please contact the appropriate Ecology regional office if you encounter a spill:

Ecology's Northwest Regional Office, Bellevue -- 425-649-7000

Ecology's Southwest Regional Office, Olympia -- 360-407-6300

Ecology's Central Regional Office, Yakima -- 509-575-2490

Ecology's Eastern Regional Office, Spokane -- 509-329-3400



REGULATORY INTERPRETATION

ISSUE NUMBER 7

(1991, month/day unknown)

ISSUE:

Is there a process to grant waivers to certain “custom” tanks that cannot, due to unusual design or situation, comply with requirements for line leak detection?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-350(2) (a): “Underground piping that conveys regulated substances under pressure shall...be equipped with an automatic line leak detector...”

INTERPRETATION:

These situations will be addressed on a “case-by-case” basis by the regional offices. A site-specific judgment is typically required in this situation which is the role of the regional offices.

REGULATORY INTERPRETATION

ISSUE NUMBER 8

(May 23, 1991)

ISSUE:

When are underground storage tanks in vaults regulated?

Case 1: A tank is located within a sealed underground vault where no routine visual inspection of the tank is possible.

Case 2: A tank is located in an underground vault with a removable cover.

APPLICABLE SECTION IN UST RULES:

WAC 173-360-110(o): Exemptions. "Storage tanks situated in an underground area (such as a basement, cellar, vault ...) if the storage tank is situated upon or above the surface of the floor."

WAC 173-360-120: Definitions. "'Underground area' means an underground room, such as a...vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor."

INTERPRETATION:

To qualify for the exemption from UST regulations, the vault must be constructed so as to provide "enough space for physical inspection of the tank".

In Case 1, the vault is sealed and there is no provision for physical inspection of the tank. This clearly does not meet the requirement for the exemption and the tank is a regulated UST.

In Case 2, physical inspection of the tank is possible by removing the cover and visually inspecting the tank. Page 37121 of the preamble to the federal UST regulations states that there should be "sufficient space to enable physical inspection of the tank, but not necessarily the tank bottom". Therefore, in this case, the tank would be exempt.

[Note: Although this tank is exempt from UST regulations, it is subject to various provisions of the Uniform Fire Code.]

REGULATORY INTERPRETATION

ISSUE NUMBER 9

(May 17 , 1991)

ISSUE:

Bilge-water is pumped from dockside through pressurized lines to large 22,000 gallon and 35,000 gallon surge tanks, each of which is connected to an oil-water separator. The oil-water separators, in turn, discharge to a municipal sewage system. The bilge-water includes sewage, detergents, solvents and up to 10% waste petroleum products. In addition, three 10,000 gallon tanks store some of the bilge-water temporarily until it is removed and treated elsewhere. None of these tanks are field-constructed. Are these tanks and pressurized lines regulated? Are the oil-water separators regulated?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-110(2) (b): Exemptions. "Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act (CWA)."

WAC 173-360-110 (3) (a): Deferrals. Wastewater treatment tank systems not regulated under Section 307(b) or 402 of the Clean Water Act.

Note: Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) which is applicable to the discharge of pollutants and other wastes into "navigable" surface waters. In Washington, a state permit program has been established under Chapter 173-220 WAC to issue discharge permits under the NPDES permit program.

Section 307(b) of the CWA is applicable to requirements for pretreatment of pollutants which are discharged into publicly owned wastewater treatment facilities or wastewater collection systems.

INTERPRETATION:

The oil-water separators discharge directly into a municipal sewage collection system and are therefore regulated under Section 307(b) of the CWA. This makes them exempt from UST regulations.

If the pressurized lines and large surge tanks are also regulated under Section 307(b), they are also exempt from UST regulations, otherwise they are deferred. (These situations need to be evaluated on a site-specific basis with personnel implementing Section 307(b) of the CWA.)

The three 10,000 gallon tanks are considered to be regulated tanks since they are not part of and do not discharge into a wastewater treatment system.

REGULATORY INTERPRETATION

ISSUE NUMBER 10

(May 11, 1992)

ISSUE:

Can oil/water separators which are not regulated under the Clean Water Act (CWA) be considered exempt from Washington UST regulations if they meet our interpretation of “de minimis concentration of regulated substances”?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-110(2)(b): “Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act.”

WAC 173-360-110 (2) (d): “Any UST system whose capacity is 110 gallons or less.”

WAC 173-360-110(2) (e): “Any UST system that has never contained more than a de minimis concentration of regulated substances...”

Preamble to Federal UST rules, page 37110: “Wastewater treatment tanks not covered by the CWA or otherwise excluded will continue to be deferred under these regulations. Oil-water separators and other similar treatment devices fall under the definition of “wastewater treatment tank” under today’s rule.”

INTERPRETATION:

Since the contents in an oil/water separator are in varying states of separation, depending on how recently oil-contaminated water has entered the oil/water separator, there is a mixture of a regulated petroleum substance (oil) with a non-regulated substance (water). Therefore, if the total amount of oil in an oil/water separator, when mixed with water, is 110 gallons or less, the oil/water separator is an exempt UST system based on our previous interpretation of “de minimis concentration of a regulated substance” (see Regulatory Interpretation Issue No. 5).

As a practical matter, the total amount of oil in an oil/water separator will seldom exceed 110 gallons. However, if it does, the oil/water separator will still qualify for an exemption from UST regulations if it can be shown that it is “expeditiously emptied”, that is, the oil is removed within 72 hours of when the total amount of oil in the oil/water separator exceeds 110 gallons. However, if an oil/water separator holds more than 110 gallons of oil for more than 72 hours, it is a “deferred” tank under UST regulations and subject to those portions of the UST regulations which apply to deferred tanks.

REGULATORY INTERPRETATION

ISSUE NUMBER 11

(June 19, 1991)

ISSUE:

Does an UST system which is located on a farm and which stores fuel used for farming activities, but which also stores fuel used for business operations off the farm, qualify for the farm tank exemption as long as the fuel is not resold?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-110 (2) (g): Exemptions. "Farm or residential UST systems of 1100 gallons or less capacity used for storing motor fuel for noncommercial purposes (i.e., not for resale)".

WAC 173-360-120: Definitions.

"'Farm tank' is a tank located on a tract of land devoted to the production of crops..."

"'Residential tank' is a tank located on property used primarily for dwelling purposes; such properties do not include dormitories, convents, mobile home parks, apartments, hotels and similar facilities, unless the tank is used by the owner solely for his or her own personal use, rather than to maintain the overall facility."

INTERPRETATION:

The UST system does not qualify for the farm tank exemption because, in order to qualify for the exemption, the stored fuel must be used only for direct farm purposes or personal use. This is consistent with the definition of a "residential tank", which specifically excludes facilities which would be regarded as businesses, even though people live in the facilities. The fuel stored in a residential UST system must be used only for the personal use of the resident to qualify for the residential tank exemption; based on the same logic, a farm UST system is exempt only if the fuel stored in the tank is used solely for the production of crops associated with the farm or for the personal use of the owner. An off-farm business is considered a commercial use.

REGULATORY INTERPRETATION

ISSUE NUMBER 12

(October 4, 1991)

ISSUE:

If a petroleum storage tank is installed above ground, surrounded by a concrete wall, and the space between the wall and the tank filled with sand, is the tank a regulated UST?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-120 Definitions: "Underground storage tank" or "UST" means any one or combination of tanks...the volume of which is ten percent or more beneath the surface of the ground."

INTERPRETATION:

This is a regulated UST system. This interpretation is based on the following language contained in the preamble to the federal rule, on page 37116 subsection (d): "A tank is 10 percent or more beneath the surface of the ground if its volume...is 10 percent or more beneath the ground surface or otherwise covered with earthen materials. This definition reflects the intent of the UST regulations to govern underground tanks that could leak into the ground undetected. Thus, the following types of tanks are included within the UST jurisdiction: Tanks that are underground; in-ground open-top tanks; and tanks that are above ground but are covered with, earthen materials...Under the changes to this definition in today's rule, aboveground tanks surrounded by sand would be within the scope of these regulations."

REGULATORY INTERPRETATION

ISSUE NUMBER 13

(June 19, 1991)

ISSUE:

What is Ecology's policy on an UST system that has been out of service for over a year and now the owner/operator want it to be brought back into service?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-380(3): "Any UST system temporarily closed for three months or more shall be tightness test by a certified UST supervisor in accordance with WAC 173-360-345(6)(d) and 173-360-350(3)(b) prior to being put back into service unless the system is subject to and in compliance with the release detection requirements of WAC 173-360-330."

WAC 173-360-380(4): "When an UST system is temporarily closed for more than 12 months, owners and operators shall have a certified UST supervisor permanently close the UST system if it does not either meet the performance standards...for new UST systems or the upgrading requirements..."

INTERPRETATION:

Any temporarily closed UST system that does not comply with the performance standards for new UST systems under WAC 173-360-305 or the upgrade requirements for existing UST systems under WAC 173-360-310, must permanently close after the 12 month temporary closure period ends. The department may approve an extension of the temporary closure period beyond 12 months to address situations where permanent closure of an UST system is not appropriate. The owner or operator must have a site assessment completed before the extension can be applied for.

For the purpose of implementing the state UST regulations, the department will impose the requirement to permanently close the UST system or request an extension if the UST system has been temporarily closed for 12 months as of December 28, 1991 which is 12 months after the state UST regulations took effect.

If an UST system is being brought back into service, the owner or operator must have a tightness test conducted on the UST system if it has been temporarily out of service for more than three months, unless the UST system is subject to and in compliance with the release detection requirements in the UST regulations (ref. WAC 173-360-380(3)).

REGULATORY INTERPRETATION

ISSUE NUMBER 14

(1991, month/day unknown)

ISSUE:

If a confirmed release from an UST system is discovered and reported as a result of conducting a site assessment for the UST system being permanently closed, do corrective action requirements, as specified in WAC 173-360-399, need to be completed before the UST system is considered to be permanently closed if all requirements associated with permanently closing an UST system, specified in WAC 173-360-385, have been met?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-385(1): “The site assessment required under WAC 173-360-390 shall be performed...before completion of the permanent closure...”

WAC 173-360-399: “...upon confirmation of a release...or after a release from the UST system is identified in any other manner, owners and operators shall immediately undertake appropriate measures in accordance with Chapter 173-340 WAC and/or this chapter...”

INTERPRETATION:

An UST system is considered to be permanently closed after all requirements related to permanent closure specified in our UST rules have been satisfied. When a confirmed release is discovered, this includes reporting the confirmed release to the appropriate regional office and submitting the site assessment checklist and results to the department. Therefore, any required corrective action does not need to be completed before an UST system is considered to be permanently closed.

REGULATORY INTERPRETATION

ISSUE NUMBER 15

(June 24, 1991)

ISSUE:

Should a “triple rinse” be considered sufficient before closing a tank in place, or should physical entry into the tank be required? (Note: “Triple rinsing” involves inserting equipment into the tank-through the fill pipe without a person physically entering the tank.)

APPLICABLE SECTION IN UST RULES:

WAC 173-360-385(3): “To permanently close an UST system, the tank services provider shall empty and clean the tank by removing all liquids and accumulated sludges.”

INTERPRETATION:

Typically, a triple rinse is used as an initial step in the process of cleaning an underground storage tank, followed by inerting and physically entering the tank to do a more thorough cleaning. Triple rinsing, when used as the sole method for cleaning an underground storage tank which has contained petroleum, does not sufficiently remove petroleum sludges which have accumulated. This is especially true at the end of the tank opposite from the fill pipe. Due to the potential for environmental contamination from sludges remaining in a tank which is closed in place, additional cleaning besides a triple rinse should be required unless there is a compelling reason why a hole cannot be cut into the tank to allow physical entry for additional cleaning activities.

The decision as to whether a triple rinse is sufficient for cleaning a tank which has stored a hazardous substance will be made on a site-specific basis based on the nature of the particular substance stored.

REGULATORY INTERPRETATION

ISSUE NUMBER 16

(1991, month/day unknown)

ISSUE:

If a corrosion protection system is installed on an UST prior to the December 22, 1998 compliance date for upgrading, is the corrosion protection system required to be operated, maintained and tested in accordance with the requirements in our state UST rules?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-320: "All owners and operators of steel UST systems with corrosion protection shall comply with the following requirements..."

INTERPRETATION:

UST rules clearly require that corrosion protection systems installed before the upgrading compliance date be operated, maintained and tested according to the requirements in the UST rules. In the case of STI-P3 tanks, this means that testing of the cathodic protection systems on these tanks needs to be performed by certified UST supervisors and reported on cathodic protection checklists.

REGULATORY INTERPRETATION

ISSUE NUMBER 17

(1991, month/day unknown)

ISSUE:

Does that portion of a metal fill pipe in contact with the soil need to have corrosion protection?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-305 (2): "...piping that routinely contains regulated substances and is in contact with the ground shall be properly designed and constructed with material that is compatible with and impermeable to the stored substance, and protected from corrosion..."

WAC 173-360-310 (3): Piping upgrading requirements. Metal piping that routinely contains regulated substances and is in contact with the ground shall be cathodically protected...

INTERPRETATION:

That portion of a metal fill pipe in contact with the soil is required to have corrosion protection since it is in contact with the soil and "routinely contains a regulated substance". Metal fill pipes which are in contact with the soil should be treated no differently than other regulated piping in an UST system. [Note: Those components of an UST system which do not routinely contain a regulated substance, such as vent and vapor recovery lines are not required to have corrosion protection.]

REGULATORY INTERPRETATION

ISSUE NUMBER 18

(1991, month/day unknown)

ISSUE:

When existing steel piping on an UST system is being replaced with new piping, does the new piping need to be cathodically protected?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-305(2) (b): “The piping is constructed of steel and cathodically protected...”

WAC 173-360-310(3): “Metal piping that routinely contains regulated substances and is in contact with the ground shall be cathodically protected in accordance with...”

INTERPRETATION:

The new piping must meet the performance standards for “new UST systems”. Performance standards for new steel piping in WAC 173-360-305(2) (b) require the piping to be cathodically protected.

REGULATORY INTERPRETATION

ISSUE NUMBER 19

(September 16, 1991)

ISSUE:

To determine if a tank has “failed” a volumetric tightness test, the person conducting the test compares the computed leak rate during the test to a “threshold” value. What is the “threshold” value at which tightness testers must report the results of a volumetric tightness test as a “failed” test if this value is not otherwise specified in the testing protocols for the particular method being used?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-345(1): “Any method of release detection for tanks shall meet the performance requirements of this section. In addition, methods...shall be capable of detecting the leak rate or quantity specified for that method...with a probability of detection of 0.95 and a probability of false alarm of 0.05.”

WAC 173-360-345(6) (d): “Tank tightness testing...shall be capable of detecting at least a 0.1 gallon per hour leak rate...”

INTERPRETATION:

The “threshold” value at which tightness testers must report the results of a volumetric tightness test as a “failed” test is 0.05 gallons per hour if this value is not otherwise specified in the testing protocols for the particular method used.

This interpretation is supported by the language in the Preamble to the federal rule which, on page 37145, states: “...the tightness test threshold...should be set to detect a 0.1 gallon per hour leak rate with a PD of 95 percent and a PFA of 5 percent...Manufacturers of release detection equipment must determine what this threshold value must be to meet the performance standard...Until the manufacturer sets such a threshold, tank test operators should use the current 0.05 gallon per hour threshold.” (For many test methods, the threshold for determining a failed test is 0.05 gallons per hour.)

The Preamble also states, on page 37160, “...the standard in the final rule still requires testers to declare a leak at a threshold value of 0.05 gallons per hour...”

(Note: A failed tightness test is considered as a “suspected release” and, as such, must be reported to Ecology by the tank owner or operator within 24 hours from when the tester determines a “failed test” has occurred.)

REGULATORY INTERPRETATION

ISSUE NUMBER 20

(1991, month/day unknown)

ISSUE:

What does “annual” mean in “annual tank tightness testing” and “annual line tightness test” for compliance with UST release detection requirements?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-345(3): “UST systems that do not meet new tank or upgraded tank performance standards...may use inventory controls...and annual tank tightness testing...”

WAC 173-360-350 (2) (a): “Pressurized piping. Underground piping that conveys regulated substances under pressure shall... (ii) Have an annual line tightness test...”

DISCUSSION:

This issue is raised, for example, where a tank, initially installed prior to 1970, was last tightness tested in October of 1990. The question is whether this tank is required to have its next annual tightness test by October of this year or can the owner wait until the end of the calendar year (or “compliance year”) to have his or her tank tightness tested (assuming that the owner still elects to use this method of release detection).

If the latter interpretation is made, an owner conceivably could have his or her tank (or pressurized line) tightness tested in January of one year and wait until December of the following year to have the next tightness test conducted. This would allow a period of 23 months between tightness tests. This would be less protective of the environment than requiring a tightness within 12 months of the previous test.

INTERPRETATION:

Ecology requires an annual tank or line tightness test for the purpose of complying with UST release detection requirements to be conducted within 12 months of the previous test.

REGULATORY INTERPRETATION

ISSUE NUMBER 21

(February 3, 1992)

ISSUE:

Should an Automatic Tank Gauging (ATG) system, which has been demonstrated as meeting performance standards for tank tightness testing in the UST regulations, be considered as equivalent to an annual tank tightness test for purposes of complying with Washington UST release detection regulations?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-345(6) (d): "Tank tightness testing (or another test of equivalent performance) shall be capable of detecting at least a 0.1 gallon per hour leak from any portion of the tank up to the 95% full level or up to the product level limited by an overfill prevention device while accounting for the effects of thermal expansion and contraction of the regulated substance, vapor pockets, tank deformation, evaporation and condensation, and the location of the water table."

INTERPRETATION:

An ATG system, which has been demonstrated as meeting the performance standard for tank tightness testing, is equivalent to an annual tightness test provided that the following conditions are met. (These conditions do not apply to ATG systems used for monthly monitoring.)

- 1) The ATG system must be placed in the "leak test" mode at least annually.
- 2) The ATG system must be used according to the procedures and within the limitations specified in the third-party evaluation of the ATG system as a tightness test such as limitations on tank size and waiting time.
- 3) When the ATG system is in the "leak test" mode, the tank must be filled to the level of the overfill prevention device or to at least 95 percent full if one is not installed. If this requirement cannot be met, the portion of the tank above the product level must be tested using a nonvolumetric tightness testing method.
- 4) While the ATG system is in the "leak test" mode, its operation must be observed by a certified UST supervisor. The certified supervisor is responsible for verifying that conditions 2 and 3 are met, among other things.
- 5) Test results of the ATG system in the "leak test" mode must be reported by the certified UST supervisor on a tightness testing checklist.
- 6) An annual check of the ATG system's operation must be performed according to the manufacturer's recommendations. This performance check must be conducted by a certified Installation/Retrofitting supervisor or a certified tightness testing supervisor.
- 7) Daily inventory measurements must be recorded and reconciled monthly so as to be able to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis.

REGULATORY INTERPRETATION

ISSUE NUMBER 22

(1991, month/day unknown)

ISSUE:

When a line tightness test is used as a method of release detection for suction piping, is it required when release detection is required for the UST system, or do owners have an additional three years to complete the test?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-350(2) (b): “Underground piping that conveys regulated substances under suction shall either have a line tightness test conducted at least every three years...”

INTERPRETATION:

The line tightness test must be conducted the first year that release detection is required for the overall UST system per the release detection compliance schedule, and then at least every three years thereafter.

REGULATORY INTERPRETATION

ISSUE NUMBER 23

(September 16, 1991)

ISSUE:

Can an annual line tightness test be conducted at a pressure less than one and one-half times the operating pressure?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-350(3)(b): "Line tightness testing: A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure."

INTERPRETATION:

An annual line tightness test may be conducted at a pressure less than one and one-half times the operating pressure. EPA OUST has interpreted the line testing requirement in the UST regulations as expressing the required sensitivity of the method, rather than an absolute requirement for testing at 1.5 times the operating pressure.

The relationship put forth by EPA is that an annual line tightness test must be capable of detecting a leak rate in the line which is equal to multiplying 0.1 gallon per hour by the square root of the line pressure during testing divided by 1.5 operating pressure. (This relationship is based on the relationship for the flow of liquid through an orifice.) For example, a device that operates at operating pressure must be capable of detecting a leak rate of 0.08 gallons per hour; i.e., 0.1 multiplied by the square root of 1.0 divided by 1.5.

REGULATORY INTERPRETATION

ISSUE NUMBER 24

(1991, month/day unknown)

ISSUE:

There is an automatic line leak detector called a “pressure probe” that is being installed on pressurized fuel lines of UST systems. The manufacturer of this device claims that it eliminates the need for an annual line test because “it is much more sensitive to pressure drops in the line than other line leak detectors”. Does installation of this device eliminate the requirement in our UST rules to have either an annual line tightness test or monthly monitoring in addition to automatic line leak detection for pressurized piping?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-350(2) (a): “Underground piping that conveys regulated substances under pressure shall...be equipped with an automatic line leak detector...and...have an annual line tightness test...or have monthly monitoring...”

WAC 173-360-350(c): “Any of the methods in WAC 173-360-345(6) (f) through (j) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.”

WAC 173-360-345(j): “Other methods. Any other type of release detection method, or combination of methods, can be used if...It can detect a 0.2 gallon per hour leak rate...with a probability of detection of 0.95...”

INTERPRETATION:

This device is one of several similar electronic devices that are being marketed which their manufacturers claim can be permanently installed on a pressurized piping system to fulfill both the requirement for automatic line leak detection and the requirement for line tightness testing or monthly monitoring.

This device can be used to conduct (not substituted for) an annual line tightness test if the manufacturer of this device can demonstrate, using the EPA evaluation protocols for a “Pipeline Leak Detection System Used as a Line Tightness Test”, that it can detect a leak as small as 0.1 gallon per hour at 150% of the line operating pressure with a probability of detection, P (D), of at least 95 per cent.

According to WAC 173-360-345(j), one of the allowed methods of monthly monitoring for pressure piping is any type of line testing that can detect a leak of 0.2 gallon per hour at the line operating pressure with a probability of detection of at least 95 per cent. The above EPA protocols can be used to evaluate pipeline testing methods and devices that claim to meet this requirement.

Therefore, the “pressure probe” device may be used to conduct (not substituted for) monthly monitoring if the manufacturer can demonstrate, using these EPA protocols, that it can detect a leak of 0.2 gallon per hour at the line operating pressure with a probability of detection of at least 95 per cent.

REGULATORY INTERPRETATION

ISSUE NUMBER 25

(1991, month/day unknown)

ISSUE:

How should we interpret the phrase “routinely contains regulated substances”? (Note: The phrase in the EPA regulations is “routinely contains product”.)

APPLICABLE SECTION IN UST RULES:

WAC 173-360-305(1): “Tanks...and any portion underground that routinely contains regulated substances shall be protected from corrosion...”

WAC 173-360-305(2): “The piping that routinely contains regulated substances ...shall be...protected from corrosion...”

WAC 173-360-335(1): “Owners and operators...shall provide a method...of release detection that...can detect a release from any portion of the tank and connected underground piping that routinely contains a regulated substance...”

WAC 173-360-350(2): “Underground piping that routinely contains regulated substances shall be monitored for releases...”

INTERPRETATION:

The phrase “routinely contains regulated substances” will be interpreted on a site-specific, “case-by-case” basis rather than developing standardized criteria to make this determination.

REGULATORY INTERPRETATION

ISSUE NUMBER 26

(1991, month/day unknown)

ISSUE:

Can we routinely require a site assessment to be conducted for tanks that were abandoned or “closed” prior to December 22, 1988 when additional closure or removal activities are undertaken?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-395: “When directed by the department. . . the owner or operator of an UST system permanently closed or abandoned before December 22, 1988, shall have a person registered to perform site assessments assess the site. . . if releases from the UST may, in the judgment of the department...pose a current or potential threat to human health and the environment.”

INTERPRETATION:

Ecology has the authority to require site assessments to be conducted on these tanks on a site specific, case-by-case basis when department staff has reason to believe they should be conducted based on current or potential threat to human health and the environment.

REGULATORY INTERPRETATION

ISSUE NUMBER 27

(1991, month/day unknown)

ISSUE:

For purposes of site assessment, and particularly in relation to sampling requirements, how are the parameters of the site defined?

INTERPRETATION:

For the purposes of site assessment, the “site” which needs to be investigated for the presence of a release, is limited to the excavation zone of the UST system (tank and associated piping) which is being investigated.

REGULATORY INTERPRETATION

ISSUE NUMBER 28

(February 3, 1992)

ISSUE:

If an owner changes the use of his UST from a regulated tank to an exempt tank (e.g., a farm tank storing motor fuel not for resale), is a site assessment required?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-385(5): "Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators shall have a certified UST supervisor empty and clean the tank by removing all liquid and accumulated sludge, and shall have a site assessment conducted in accordance with WAC 173-360-390."

INTERPRETATION:

A site assessment is not required as long as the UST system continues to store a regulated substance, even though a change in its use changes its status from "regulated" to "exempt". "Change-in-service" refers to an UST system going from storing a regulated substance to a non-regulated substance. It does not refer to a regulated UST system becoming an exempt UST system as a result of a change in its use.

REGULATORY INTERPRETATION

ISSUE NUMBER 29

(May 21, 1991)

ISSUE:

(1) Can Statistical Inventory Reconciliation (SIR) methods which are evaluated according to the EPA protocols for SIR methods and can detect a leak of 0.20 gallon per hour with a probability of detection of at least 95%, be used monthly as a stand-alone method of release detection?

(2) Can SIR Methods which are evaluated according to the EPA protocols for SIR methods and can detect a leak of 0.10 gallon per hour with a probability of detection of at least 95%, be used annually as a stand-alone method of release detection?

The introduction to the EPA evaluation protocols for SIR methods define Statistical Inventory Reconciliation as “a procedure based on the statistical analysis of a series of daily inventory records taken by the tank owner/operator. The results of the analysis are used to indicate whether the tank is leaking...For this protocol, SIR methods are viewed as services offered commercially to tank owners/operators...Tank owners and operators are required to demonstrate that the method of leak detection they use meets the EPA performance standards of...having a probability of detection of at least 95% to detect a leak of 0.10 gallon per hour for an annual test and a leak rate of 0.20 gallon per hour for a monthly test.”

APPLICABLE SECTION IN UST RULES:

Re. (1): WAC 173-360-345(6) (j): “Other methods. Any other type of release detection method, or combination of methods, can be used if: (1) it can detect a 0.2 gallon per hour leak rate...”

Re. (2): WAC 173-360-345(6) (d): “Tank tightness testing (or another test of equivalent performance) shall be capable of detecting at least a 0.1 gallon per hour leak from any portion of the tank up to the 95% full level or up to the product level limited by an overfill protection device while accounting for the effects of thermal expansion and contraction of the regulated substance, vapor pockets, tank deformation, evaporation and condensation, and the location of the water table.”

INTERPRETATION:

SIR methods which are evaluated according to the EPA evaluation protocols for SIR methods and can detect a leak of 0.20 gallons per hour with a probability of detection of at least 95 per cent, are an acceptable method of monthly monitoring based on the language in WAC 173-360-345(6)(j).

Tank owners and operators should be required to have the results of SIR methods available for inspection no later than one month following the submittal for SIR analysis of daily inventory records for the previous month.

However, there is currently no provision in our UST rules for allowing SIR to be used on an annual basis as a method of release detection. This would, in effect, make SIR a substitute for annual tank tightness testing and would result in difficulties in reconciling SIR methods with the certification requirements in our rules. Therefore, at the present time, SIR used on an annual basis is not an acceptable method of release detection.

REGULATORY INTERPRETATION

ISSUE NUMBER 30

(September 16, 1991)

ISSUE:

If an underground storage tank is excavated and removed from the ground and converted to an above-ground storage tank, is this considered as a “change-in-service” or as a “permanent closure”?

APPLICABLE SECTION IN UST RULES:

7AC 173-360-385(5): “Continued use of an UST system to store a non-regulated substance is considered a “change-in-service...”

INTERPRETATION:

When an underground storage tank is excavated and removed from the ground and placed above ground, this does not meet the definition of being a “change-in-service”. This situation is considered to be a “permanent closure” and, as such, all of the requirements in the UST regulations associated with a permanent closure apply.

REGULATORY INTERPRETATION

ISSUE NUMBER 31

(1991, month/day unknown)

ISSUE:

When tanks are lined, what is their effective age with regards to the compliance schedule for leak detection? Does lining the tank change the date when release detection is required?

APPLICABLE SECTION IN UST RULES:

WAC 173-360-330.

INTERPRETATION:

The installation date of the tank determines when release detection is required regardless of whether or not the tank has been lined.

REGULATORY INTERPRETATION

ISSUE NUMBER 32

(May 20, 1991)

ISSUE:

Can an UST permit be denied or revoked for failure to comply with provisions of the MTCA regulations?

APPLICABLE SECTION IN UST RULES:

RCW 90.76.020(5)(a): "Facility compliance tags may only be issued for facilities that have installed the equipment required to meet corrosion, spill, and overfill protection standards that are required by December 22, 1988, and at the time of tag issuance have demonstrated financial responsibility and paid annual tank fees."

WAC 173-360-130(3): "Underground Storage Tank systems are eligible for a permit if...the owner or operator is in compliance with all requirements of this chapter...and Chapter 173-340, if applicable..."

WAC 173-360-130(8): "The department may request the surrender of a permit for any tank which does not remain in compliance with the requirements of this chapter...or for any violation of the chapter..."

INTERPRETATION:

Ecology may deny an application for a tank permit if the applicant is not in compliance with applicable provisions of the MTCA rules, including Chapter WAC 173-340-450 (Releases from Underground Storage Tanks). Section WAC 173-360-130(8) authorizes Ecology to revoke a permit if the permittee has failed to maintain compliance with WAC 173-360-130(3), which includes compliance with applicable provisions of MTCA.

REGULATORY INTERPRETATION

ISSUE NUMBER 33

(March 4, 1991)

COMMONLY ASKED QUESTIONS REGARDING HEATING OIL

This paper summarizes material developed by EPA Region 10 to address questions regarding the heating oil exemption and emergency power generators. Several commonly asked questions and answers are provided, together with a discussion of the basis for the answer.

QUESTION 1:

An emergency power generator that is designed to run on fuel oil is actually being run on diesel fuel. Does the underground storage tank containing the diesel fuel get the exemption for a "tank used for storing heating oil for consumptive use on the premises where stored?" (WAC 173-360-II0 (3) (h))

ANSWER: This tank is exempt.

DISCUSSION:

Underground storage tanks used in the following situations are exempt from the UST regulations:

1. The emergency power equipment is designed to run on fuel oil and fuel oil is always used.
2. The emergency power equipment is designed to run on diesel fuel but fuel oil is always used.
3. The emergency power equipment is designed to run on fuel oil but diesel fuel is used as a substitute.

Underground storage tanks used in the following situation are regulated. (NOTE: This differs from EPA's interpretation of their own rule, under which these systems are deferred.)

1. The emergency power equipment is designed to run on diesel fuel and diesel fuel is used.

QUESTION 2:

A school district stores heating oil to fuel boilers, and OCCASIONALLY uses the fuel to fuel emergency power generators. Do the tanks remain exempt?

ANSWER: This tank is exempt.

DISCUSSION:

Page 37117 of the September 23, 1988, Federal Register states:

“Additional commentors thought that the exclusion should not be limited to oil used for heating purposes. The Agency agrees that the heating limitation is inconsistent with the statutory language of the exclusion that limits “use” only by requiring “consumptive” use. The final rule definition, therefore, includes heating as a typical use of the fuels, but does not limit the exclusion to fuels so used.

So, if the School District’s heating oil is for “consumptive use on the premises where stored,” they can use the heating oil for virtually any purpose and remain exempt from the federal regulation. Washington State has adopted EPA’s interpretation of these identical definitions.

QUESTION 3:

Fuel oil for emergency power generation is stored on the hospital campus in an UST. The tank is utilized solely as a fuel storage tank for emergency power generation and no fuel is resold from this tank. The fuel oil utilized is one of the approved fuel oils listed in the UST regulations.

ANSWER: This tank is exempt under the heating oil exclusion: “heating oil for consumptive use on the premises where stored.”

DISCUSSION:

Page 37117, column 3, of the September 23, 1988 Federal Register states:

“The final rule definition...includes heating as a typical use of fuels but does not limit the exclusion to fuels so used. ...This definition has been modified since the proposed rule to clarify that tanks holding heating oil for any (emphasis added) use, such as heating or to power a generator, are exempt from regulation.”

QUESTION 4:

Fuel oil for emergency power generation is stored on the hospital campus in an UST. The tank is utilized solely as a fuel storage tank for emergency power generation and no fuel is resold from this tank. The emergency power equipment is designed to run on diesel, and the fuel oil utilized is diesel.

ANSWER: This tank is regulated.

Discussion:

The tank is regulated because the emergency power equipment is designed to run on diesel fuel and diesel fuel is used.

QUESTION 5:

Fuel oil for emergency power generation is stored on the hospital campus in an UST. The tank is utilized solely as a fuel storage tank for emergency power generation and no fuel is resold from this tank. The emergency power generator system is capable of running on one of the approved fuel oils listed in the UST regulation, but diesel is utilized due to economic reasons.

ANSWER: This tank is excluded.

DISCUSSION:

“The exclusion...limits the use of substitution to those situations where the substitute is actually used in place of one of the technical grades of fuel oil.”

The exclusion applies if “heating oil” is the “fuel of choice” for this emergency power generator, but diesel is used for economic reasons. One test to apply to this situation is to determine if “heating oil” can be used in the generator, with no harm to the generator after extended use. If diesel is used in the system, but “heating oil” can be used just as easily as diesel, diesel is then considered a substitute for “heating oil” and the diesel tank is exempt.

QUESTION 6:

Back-up heating oil (normal source is natural gas) is stored on the hospital campus in an UST. The tank is utilized solely as a fuel storage tank for heating and no fuel is resold from this tank. The fuel oil utilized is one of the approved fuel oils listed in the UST regulations.

ANSWER: The tank is exempt.

DISCUSSION: See Q/A #3.

QUESTION 7:

A single UST is utilized for back up heating oil (normal source is natural gas) and for emergency power generation. The tank is utilized solely as a fuel storage tank for heating and emergency power generation and no fuel is resold from this tank. The fuel oil utilized is one of the approved fuel oils listed in the UST regulations.

ANSWER: The tank is exempt.

DISCUSSION:

If it can be determined that the diesel fuel utilized in this situation is a “substitute” for one of the technical grades of fuel oil, the heating oil exclusion applies, regardless of what the fuel is used for. Please see discussion for Q/As #3 and #5.

QUESTION 8:

A single UST is utilized for back-up heating oil (normal source is natural gas) and for emergency power generation. The tank is utilized solely as a fuel storage tank for heating and emergency power generation and no fuel is resold from this tank. The fuel oil utilized is diesel. Both the emergency power generator system and the heating system are capable of running on one of the approved fuel oils listed in the UST regulations, but diesel is utilized due to economic reasons.

ANSWER: The tank is exempt.

DISCUSSION:

If you can determine that the diesel fuel utilized in this situation is a “substitute” for one of the technical grades of fuel oil, the heating oil exclusion applies, regardless of what the fuel is used for.

EPA believes that tanks storing diesel fuel should sometimes be treated as heating oil; however EPA does not agree that diesel fuel should be considered heating oil in all situations or in the situations where diesel fuel is used to power emergency diesel motor generators. EPA believes that Congress intended to include motor fuel tanks in the scope of Subtitle I. Numbers 1 and 2 fuel oil are chemically similar to Numbers 1 and 2 diesel fuel, but Congress did not base the exclusion on chemical properties. Diesel fuel tanks are excluded from the final rule if the diesel fuel is used solely on-site as a substitute for fuel oil. If the diesel fuel is also used to power an emergency generator, then the tank system is subject to the final regulation because it is not a fuel oil or used as a substitute for fuel oil in such a situation.

EPA modified the definition in the final rule to replace “for heating purposes” with “as a substitute for fuel oil.” EPA asserts that the “for heating purposes” criteria is not implicit in the Subtitle I exclusion. The Agency believes that the “substitute for fuel oil” language is a more accurate reflection of congressional intent to exclude on-site use of fuel oils under this exclusion. Tanks storing jet fuel that is used as a substitute for fuel oil and is consumed on site are excluded from the final rule; however, if these tanks store jet fuel for both powering jets and for on-site heating, then the Subtitle I regulations would apply.

Does My Tank Qualify for the Heating Oil Tank Exemption?

DECISION TREE:

NOTES:



